



**Underwriters Laboratories Inc.®**

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File E135803  
Project 99SC56151

January 14, 2000

REPORT

ON

COMPONENT - POWER SUPPLIES,  
INFORMATION TECHNOLOGY EQUIPMENT, INCLUDING  
ELECTRICAL BUSINESS EQUIPMENT

Condor DC Power Supplies Inc.  
Oxnard, California

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## DESCRIPTION

## PRODUCT COVERED:

\* USR, Component - Switching Power Supplies For Use in Information Technology Equipment, Models GSC20-X where X represents the output voltage, which may be any number from 3.3 thru 28.

## ELECTRICAL RATINGS:

Input: 100-240 V ac, 50/60 Hz, 0.6 A

\* Output: 3.3 thru 28 V, 4.0 thru 0.7 A  
13.2 W maximum for output voltages from 3.3 thru 4.8 V  
20 W maximum for output voltages from 4.9 thru 28 V

## ENGINEERING CONSIDERATION (NOT FOR FIELD REPRESENTATIVE'S USE):

\* This product was investigated under the Standard for Information Technology Equipment, UL 60950, Third Edition, dated December 1, 2000.

This product is for use only in (or with) complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - When installed in the end-use equipment, considerations shall be given to the following:

- 1.\* This component has been judged on the basis of the required spacings in the Standard for Information Technology Equipment, Subclause 2.10, which would cover the component itself if submitted for unrestricted Listing.
2. This power supply shall be installed in compliance with the enclosure, mounting, creepage, clearance, casualty, markings and segregation requirements of the end-use application.
- 3.\* The need for conducting Touch Current Tests is to be determined as part of the end-product evaluation.

4. This power supply has only been evaluated for use in Pollution Degree 2 environment.
5. The terminals and connectors have not been evaluated for field wiring.
- 6.\* This power supply shall be properly bonded to earth in the end-use product as this unit was investigated for Class I construction as defined in UL 60950. An additional evaluation shall be made if the power supply is intended for use in other than Class I equipment.
7. The output of this power supply is considered SELV and non-energy hazardous energy levels.
- 8.\* This power supply was evaluated under the assumption that the power source is a TN-S system as defined by UL 60950.
9. This power supply has been evaluated for use in a 25°C and a 50°C ambient. An additional evaluation should be made if the power supply is intended to be used in an elevated ambient.
10. The printed wiring board ground trace has not been evaluated for protective earthing purposes.
- 11.\* All power supplies comply with the Limited Power Source requirement in Clause 2.5 of UL 60950.

# Certificate of Compliance

**Certificate:** 1325664

**Master Contract:** 150684 (LR 46516C)

**Edition:** 1

**Date Issued:** May 23, 2002

**Issued to:** **Condor D.C. Power Supplies Inc.**  
2311 Statham Parkway  
Oxnard, CA 93033  
USA

*The products listed below are eligible to bear the CSA Mark shown*



**Issued by:** Shane Stevenson, AScT.



**Authorized by:** Terry Nagy,  
Operations Manager

## PRODUCTS

CLASS 5311 06 - POWER SUPPLIES - Component Type

Component power supplies for use with Information Technology Equipment, where the suitability of the combination is to be determined by CSA International.

- Model GSC20-X where X represents the output voltage, which may be any number from 3.3 thru 28.

## RATINGS

**Input:** 100-240 V ac, 0.6 A, 50/60 Hz

**Output:** 3.3 thru 28 V, 4.0 thru 0.7 A (L3M1)

13.2 W maximum for output voltages from 3.3 thru 4.8 V

20 W maximum for output voltages from 4.9 thru 28 V

**Certificate:** 1325664

**Master Contract:** 150684 (LR 46516C)

**Edition:** 1

**Date:** May 23, 2002

Notes:

1. Maximum Operating Ambient Temperature 50°C.
2. Maximum Operating Relative Humidity 96%, no condensation.
3. Storage: -40 to +85°C. Units should be allowed to warm-up under non-condensing conditions before application of power.

**APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 60950-00 - Safety of Information Technology Equipment, Including Electrical Business Equipment

**CONDITIONS OF ACCEPTABILITY**

1. This component has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, CAN/CSA-C22.2 No. 60950-00, which covers the end-use product for which the component is designed.
2. A suitable enclosure to be provided in the end-use equipment complying with the applicable requirements for Fire or Electrical enclosures.
3. The input/output connectors are not acceptable for field connections, they are only intended for connection to mating connectors of internal wiring inside the end-use equipment.
4. The main isolation transformer (T2) is provided with Class F insulation.
5. The temperature tests were performed in a raised ambient of 50°C.
6. The power supply was evaluated for Basic insulation between primary and ground and Reinforced insulation between primary and secondary based on min 250 V ac, and Functional insulation between output to ground.
7. The power supply has been evaluated as Class I equipment, continuous operation, and pollution degree 2.
8. Under normal and single fault conditions, the outputs do not exceed SELV limits.
9. Grounding and Bonding is to be evaluated in the end use application (Heatsink FN1 requires Bonding).



Product Service

# CERTIFICATE

No. B 06 07 59743 010

Holder of Certificate: **SL Power Electronics, Corp.**



6050 King Drive Bldg A  
Ventura CA 93003  
USA

Production Facility(ies): 16784, 52962

Certification Mark:



Product: **Switching power supply unit  
(AC/DC Switching Power Supply)**

Model(s): **GSC20-x Series  
(For further model information please see  
attachment)**

Parameters:

Rated Input Voltage:	100-240 VAC
Rated Frequency:	50 / 60 Hz
Rated Input Current:	0.6 A max.
Protection Class:	I
Rated DC Outputs:	See attachment

See attachment for Conditions of Acceptability.

Tested according to: EN 60950-1/A11:2004

The product was tested on a voluntary basis and complies with the following essential requirements. The certification mark shown above can be affixed on the product. The certification mark must not be altered in any way. See also notes overleaf.

Test report no.: 095-602109-000

Date, 2006-07-21

Page 1 of 2



218708



Product Service

**Attachment to certificate No. B 06 07 59743 010  
for SL Power Electronics, Corp.**

**AC/DC SWITCHING POWER SUPPLY**

The equipment (DC Power Supplies) covered by this report, are components, which are intended for use in Information Technology Equipment.

**GSC20-x Series:**

Where x represents the output voltage, which may be any number from 3.3 through 28  
May or may not be followed by suffix -XXX, where XXX may be any number from 001 thru 999.  
The -XXX suffix are used for value added configurations that have no impact on safety.  
May be followed by an optional "G" which indicated compliance with RoHS.

**OUTPUT:** 4 A or 20 W maximum or see table for standard output models.

Model	Output
GSC20-3.3	3.3 V dc 4.0 A
GSC20-5	5.1 V dc 4.0 A
GSC20-12	12 V dc 1.7 A
GSC20-15	15 V dc 1.4 A
GSC20-24	24 V dc 0.85 A
GSC20-28	28 V dc 0.7 A

**Notes:**

1. Maximum operating ambient temperature is 50 °C.
2. Maximum Relative Humidity 96 %, no condensation.
3. Storage: -40 to +85 °C. Units should be allowed to warm-up under non-condensing conditions before application of power.

**CONDITIONS OF ACCEPTABILITY:**

When installed in the end use equipment, the following are among the considerations to be made:

The following must be evaluated at end use:

- 1) Fire and mechanical enclosure must be provided.
- 2) A reliable ground (Protective Earth) connection.